National Environmental Information Exchange Network

Information Package

June 2001

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http://www.epa.gov/oei/imwg
or
http://www.ecos.org

I. Introduction

Information technology is changing the way government is doing business. EPA and the States, along with many public and private sector organizations, are using information technology to streamline their business processes and to improve services. As part of this e-government evolution, EPA and the States have been working in partnership since 1998 to develop the National Environmental Information Exchange Network (the "Network"), which will transform the way States, EPA, and other partners exchange environmental data.

High-quality and timely information is essential to the work of environmental protection. Yet, many of the current government systems and approaches to exchanging environmental data are ineffective and burdensome and do not meet the needs of government or external users. The Network is a key part of the joint EPA-State vision of building "local and national access to environmental information." The Network will facilitate the exchange of data between participating partners, using the Internet (and Internet-based protocols) and standardized data exchange formats. It is a voluntary, flexible, and secure Network that enables EPA, States, and other partners to address the environmental challenges of the future.

The State/EPA Shared Vision

"The States and EPA are committed to a partnership to build locally and nationally accessible, cohesive and coherent environmental information systems that will ensure both the public and regulators have access to the information needed to document environmental performance, understand environmental conditions, and make sound decisions that ensure environmental protection." (Information Management Work Group, March 1998)

The Network will improve the quality of environmental data, make the flows of data between EPA, States, and other partners more efficient, reduce reporting burden, and improve access to environmental data. Perhaps most importantly, this approach will provide secured flows of high-quality data that can be used to measure environmental results. As Agencies move toward performance and indicator-based management approaches, the Network will provide the critical infrastructure to provide transparency and accountability.

More broadly, the Network is an important step in embracing e-government and meeting the environmental challenges of the 21st century. These challenges are magnified by the significant changes in today's business of environmental protection:

- Technology enables us to access and use information faster.
- The regulated community and the public expect faster and easier access to better information.

- Today's complex environmental issues require collaboration across many different organizations and media, and integrated, multimedia information is needed to identify solutions to these complex issues.

The following table highlights key trends that, in addition to the three changes listed above, influence how EPA, States, and other partners manage and use environmental information.

Key Trends in Managing Environmental Information

- Increasing public expectations for e-government
- Increasing role of State, Tribal, and local governments in environmental programs
- States investing in their own modern, integrated information systems and migrating away from primary use of EPA systems
- EPA must accommodate a wider diversity of State and other data partner systems
- Increased demand for real time and geospatial or locally based data.

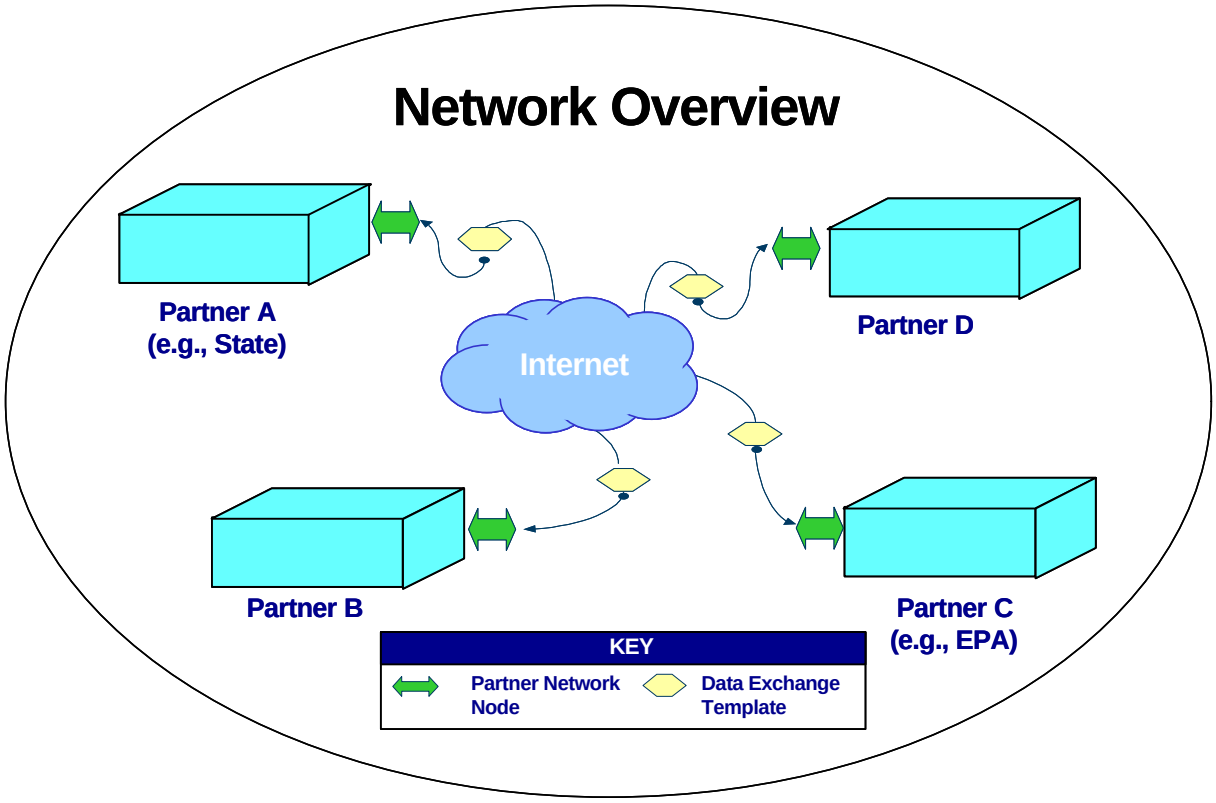
The Network concept recognizes the interdependence between and among data partners and the need to work together in sharing and using environmental data. In the process of developing the Network, EPA and the States have forged a truly collaborative approach to managing environmental information and have already made significant progress in developing the Network.

This information package will provide an overview of the Network, describe why EPA and the States are pursuing this effort, and highlight the accomplishments and future plans for the Network. The remainder of this package is organized in five sections:

- Overview of the National Environmental Information Exchange Network
- Accomplishments: what has been done
- Program Plans: future activities and milestones
- Proposed Network Grant Program: overview.

II. Overview of the National Environmental Information Exchange Network

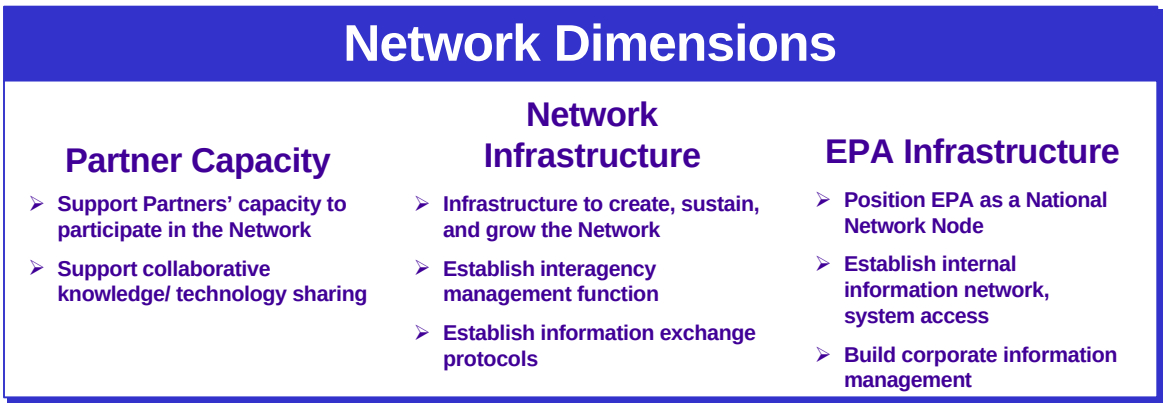
The National Environmental Information Exchange Network (the "Network") is a new approach for exchanging environmental data between EPA, States, and other partners that uses the Internet and standardized data formats. As illustrated below, the Network consists of data exchanges between "nodes" or portals maintained individually by participating partners (initially envisioned as State environmental agencies and EPA). Once established, these data exchanges will replace and complement the traditional approach to information exchange that currently relies upon States feeding data directly to multiple EPA national data systems. In addition to these historical flows, new flows of additional data (e.g., facility identification) will be established. The Network concept is described in detail in the "Blueprint for the National Environmental Information Exchange Network."



The Network strategy is based upon established best practices and technologies from the private sector in migration to e-commerce. These efforts are often organized into three interrelated areas: establishing the infrastructure for delivering services (e.g., the Internet), establishing an organization's ability to deliver services (e.g., online ordering), and supporting customers/partners (e.g., customer relations).

In adapting this private sector experience to the public setting, EPA, States, and other partners have also organized the Network effort into three dimensions:

A. Network Infrastructure—building the "backbone" of the Network
B. Partner Capacity—enabling Network partners to participate in the Network.
C. EPA Infrastructure—building the essential EPA infrastructure needed for EPA to participate, as a partner, in the Network.



Each of these dimensions has components that need to be developed if the Network is to function. This section outlines each of these dimensions and the associated components in more detail. It then summarizes the benefits of the Network.

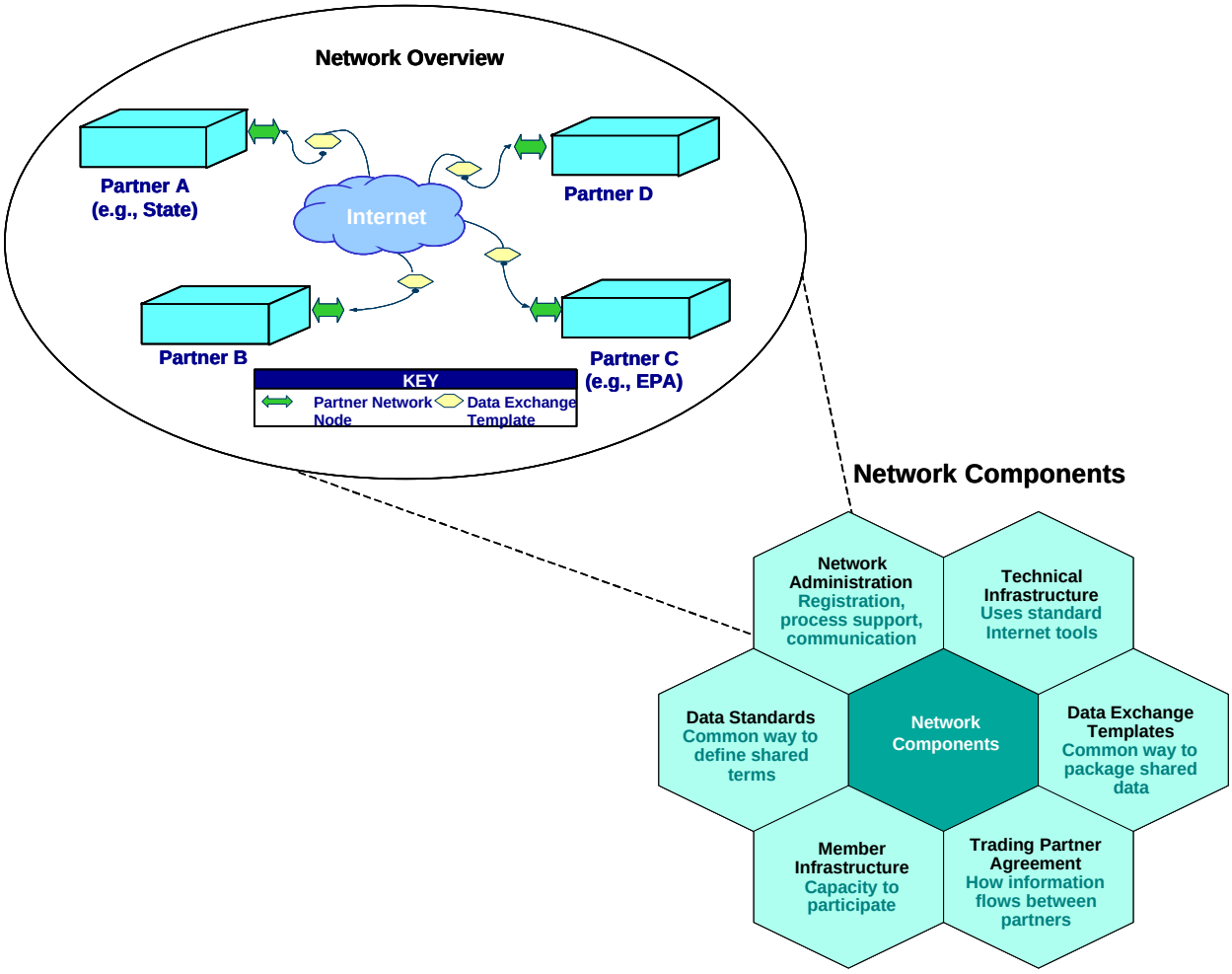
A. Network Infrastructure

The Network "infrastructure" is the backbone, or the core components, needed for the Network. The States and EPA identified the basic core components that any collective system would have to contain in order to achieve the objective of the Network overall. These are:

< A common language in which to express and evaluate environmental information. This language must allow for multiple uses of data, especially its aggregation, integration, and an assessment of its quality.
< A common way to securely and easily provide access (locally, inter-governmentally or publicly) to this information.
< A common way to establish and document the commitments and obligations about data that partners have with each other.
< A common technical infrastructure that leverages the revolutionary developments of the Web and supports these functions but does not constrain partners in their internal operations
< A common policy and program framework that supports these functions for current flows but pushes forward to expand and broaden them to new information and new partners.

The States and EPA then identified the best practices from the private sector to develop the six major components for the Network illustrated in the following figure.

Each of these Network components plays an important role in the functioning of the Network. As mentioned earlier, the Network facilitates data exchanges between "nodes" or portals, which is a participant's single, managed point of interaction between trading partners on the Network.



These nodes use the Internet to exchange data via standardized ***Data Exchange Templates*** (DETs), using common Internet-based protocols. DETs define the format data must take prior to exchange. Established Data Standards are used to develop these DETs. ***Data Standards*** are documented agreements on formats and definitions of common data. These standards are established to bring better consistency and quality to the data that trading partners maintain.

Data exchanges, between partners, are governed by ***Trading Partner Agreements*** (TPAs). TPAs document the agreed upon data, exchange format, frequency of exchange, and related issues. They explicitly define the quality, timeliness, and format of the data. These data flows are supported by both the technical and member infrastructure. The ***Technical Infrastructure*** of the Network is the software, hardware, and protocols used to make it function. ***Member Infrastructure*** defines the roles and responsibilities required for Network participants. ***Network Administration*** coordinates these components and ensures that they are accessible to partners who wish to use them.

B. Partner Capacity to Participate in the Network

The second critical dimension of the Network is the capacity of partners to participate in the Network. The activities in this dimension include information sharing and support to ensure that all data partners can effectively exchange information in the Network.

To participate in the Network, all partners need the following:

- Establishment and management of high-quality information systems that support Agency business functions and can act as Network information sources.
- Technical infrastructure capable of supporting these systems and the node.
- Managed linkage of these sources/systems, to the node.
- Node operation (e.g., servicing of authorized information requests).
- Enterprise management, including node operation and establishment of TPAs.

The initial focus of the Network activities in this area has been to build the capacity of States. As described in Section III, EPA and States have conducted many knowledge transfer activities to help build State capacity. Section IV describes a preliminary assessment of State readiness that was also completed. Future plans include expanding to provide capacity building activities for other data partners, including Tribes. Because of EPA's critical national role, EPA's infrastructure needed to participate, as a partner, in the Network is discussed as the third dimension of the Network effort.

C. EPA Infrastructure Needed to Participate, as a Partner, in the Network

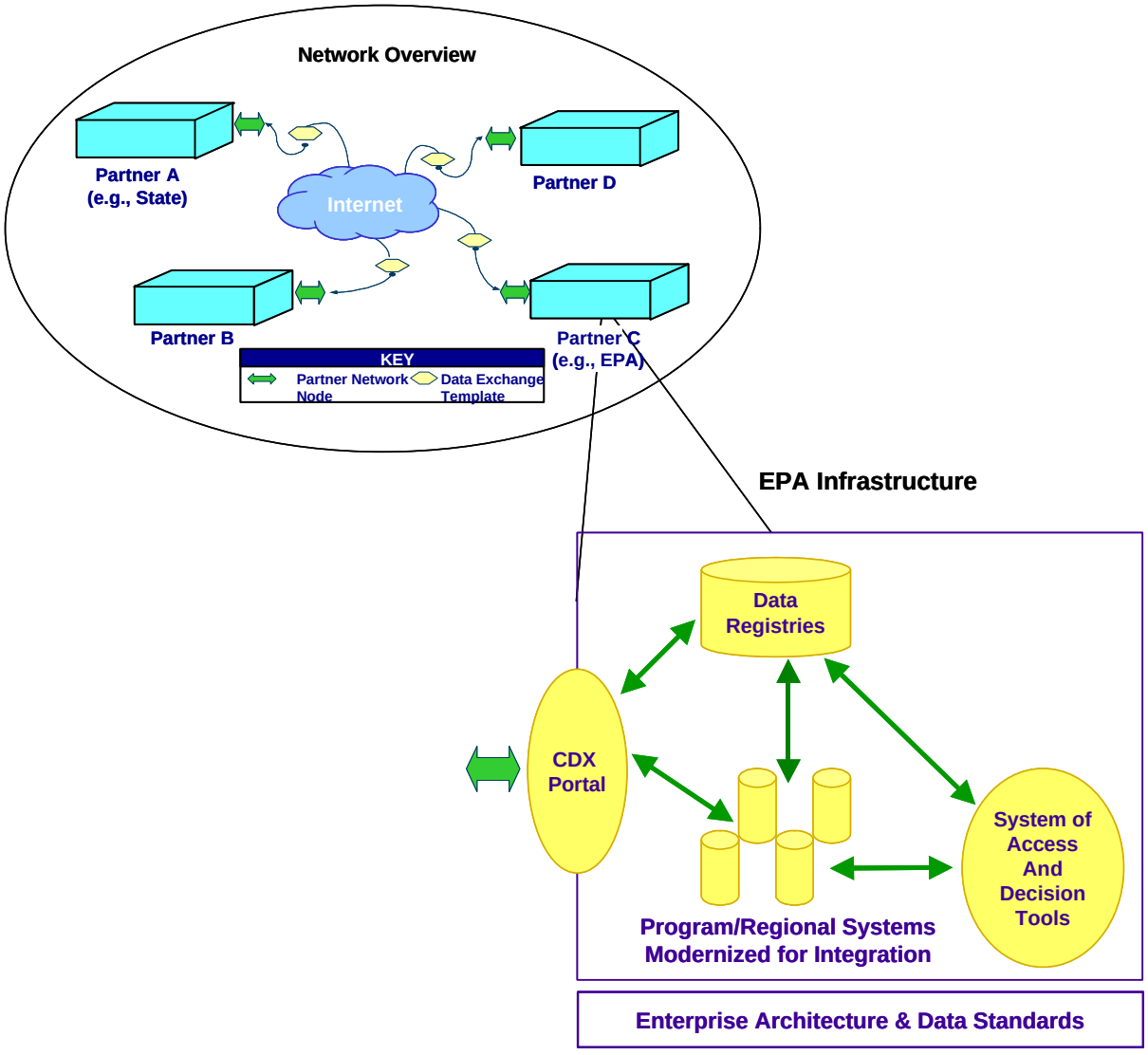
EPA Programs and Regions must play a significant role in the Network, because of the volume of information that, by law, the Agency is required to collect to effectively exercise its mandated functions (e.g., national policy setting, oversight of delegated programs and administration of national programs). The components of EPA's infrastructure that are key to EPA's effective participation in the Network include:

- **Central Data Exchange (CDX)**, EPA's portal or node on the Network, through which data flows are routed and delivered to their destination.
- **Data Standards** which are documented agreements on data elements and definitions of common data.
- **Data Registries** documenting and organizing core data for cross-Agency business needs (e.g., facility information, place information, and chemical and other substance information).
- **Program and Regional Systems modernized for integration** with the CDX, the registries, the access mechanisms, and decision support tools.
- **System of Information Access Mechanisms and Decision Support Tools** that make the information more usable to EPA, its partners, and the public.
- **Enterprise Architecture** is the framework used to guide overall investments and ensure that infrastructure and systems development are compatible with each other, and with the Network. This architecture defines the framework within which capabilities such as

access, decision support and security are implemented.

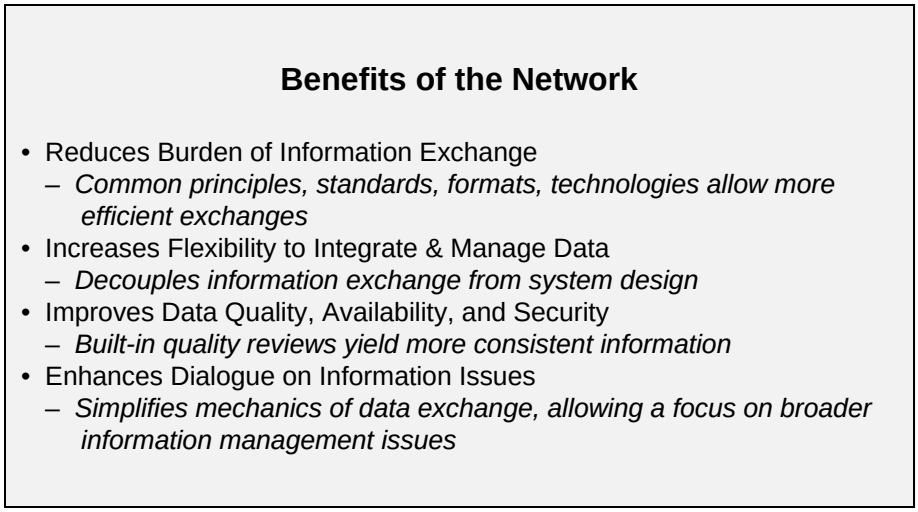
< **Geospatial Program** planning, data acquisition, and database development enhances the ability to integrate and use geospatial information for environmental decision-making and for public access.

The following diagram illustrates the components of EPA's infrastructure. Data is exchanged through the CDX, and Agency-wide data (e.g., general facility data) is placed in the appropriate data registry. Program or region-specific information is placed in the relevant program or regional system. The "system of access" includes a "data warehouse" drawing data from the registries and program/regional systems, applications that use the data in the warehouse to address user needs, and interfaces that provide users appropriate access to the information generated by the applications. Decision tools provide tools for data analysis.



Benefits of the Network

The Network is founded on principles of data stewardship, data quality, and agreement on broad technical standards. As such, it will provide a common approach to environmental data exchange that will yield many benefits. These benefits are highlighted below:



While the Network will provide many benefits, it is not intended to address all of today's environmental information challenges. The Network focuses on improving *how* EPA, States, and other partners exchange and manage environmental data. Clearly, there are additional challenges not directly addressed by the Network regarding *what* information EPA, States, and Tribes should collect for improved decision-making and performance measurement.

For example, a key challenge facing all partners in the exchange of environmental information is how to reduce burden consistent with the responsibilities of all parties. The Network can address burden that arises from process problems—needing to supply data in a rigid, outmoded format, needing to supply similar data to multiple programs or levels of government, etc. The Network does not directly address burden that may result from unneeded data being required. The Network will address several aspects of the data quality issues (e.g., incompatible definitions) but is not a panacea for these complex issues.

To address these additional aspects of information issues, EPA and the States are pursuing other information planning activities. For example, EPA's Office of Environmental Information is working on an Information Plan that will help meld efforts to streamline information exchange processes, integrate information, improve data quality, and identify and meet environmental information needs.

III. Accomplishments

EPA and the States already have made significant progress in developing the Network. The accomplishments are summarized below and highlighted in the timeline that follows this narrative.

A. Network Infrastructure

EPA and the States established a strong working partnership, developed the overall Network vision and concept, planned and built key components of the Network, and successfully demonstrated pilot data flows through the Network.

- ***State/EPA Information Management Workgroup (IMWG)****—chartered to address management issues of concern to States and EPA. Created a partnership to foster the exchange of data, and developed a vision and operating principles. Established the Environmental Data Standards Council to develop and promote the use of data standards with EPA, States, Tribes and other partners.*

- ***Stakeholder Forums—****held a forum on environmental information issues with key stakeholders in November 1999, providing early input that contributed to the Network concept. Also held a forum in May 2001 with industry and public interest groups on the Network, and began broader agenda for outreach to stakeholders.*

- ***Shared Expectations for a National Environmental Information Exchange Network****—draft document defining expectations for how to share and manage environmental data in the future while addressing ways to reduce reporting burden, use standardized transaction sets, clarify data stewardship roles, and improve data quality.*

- ***Blueprint for a National Environmental Information Exchange Network****—outlines the conceptual design of the Network—a commitment to change the way environmental data is exchanged between States, EPA, and others.*

- ***Data Standards—****Six data standards have been finalized (industry classification, chemical, biological taxonomy, calendar date, facility identification, and latitude/longitude). Four new standards are being developed. Assistance program for information system managers across the Agency has been established.*

- ***Pilot Flows through the Network—*** *demonstrated EPA's ability to retrieve air emissions inventory and facility data from a secure State server and process it through the Central Data Exchange (CDX) using Active Data Retrieval. Demonstrated State ability to send Permit Compliance System (PCS) data using a standardized extensible markup language (XML) format through EPA's CDX to PCS.*

B. EPA's Infrastructure Needed to Participate, as a Partner, on the Network

The Agency created the Central Data Exchange (CDX), EPA's node or portal on the Network, and, working closely with the States, made significant progress on data standards and data registry development. The National Geospatial Program was also launched to advance the integration of Agency programmatic data by place/location and to increase the use of geospatial data tools and technologies to support the implementation of the Agency's business operations.

- ***Central Data Exchange*** *(CDX)—was created and is now in interim operation mode. The Agency acquired core infrastructure to provide security, registration, batch file transfers, Web forms, archiving, and data transformations.*

- ***The Facility Registry System*** *(FRS) was developed and populated with over 550,000 unique facility identification records.*

- ***The National Geospatial Program*** *developed initial specifications for a Geospatial Data Index to identify which geospatial data is held Agency-wide and link into indexes/catalogues for all 50 states, other federal agencies and non-governmental organizations. Completed a comprehensive Geospatial Activities Baseline Assessment and Report and scalability assessment for the Integrated Geospatial Database.*

- ***"Window To My Environment,"*** *a Web-based geospatial application that allows users to access information about environmental conditions in their community; was demonstrated with States in Region 3 (Virginia, Maryland, West Virginia, Pennsylvania, and Delaware).*

C. Partner Capacity to Participate in the Network

States and EPA (both Headquarters and Regional Offices) have participated extensively in a variety of knowledge transfer activities over the past three years. Activities have been developed or supported that not only meet the needs of many, but also leveraged State and EPA resources. Knowledge Transfer accomplishments over the past three years have been generally directed toward State capacity building. A partial listing of these activities follows:

- ***Many States, 25-35, are moving towards integrated information systems.***

- ***Knowledge Transfer Meetings—****Six meetings held since 1998 to focus on integrating facility information, sharing lessons learned, and demonstrating successes.*

- ***Knowledge Transfer Products—****these include Facility Identification Template for States (FITS); Web site for Ideas and Solutions on Environmental Information and Regulatory Innovations (WISER); Facility Identification Template for States update (FITS II); Ambient Environmental Information—A Report on State and EPA Data Integration Efforts; Guide for State Environmental Agencies on Planning and Hosting a Public*

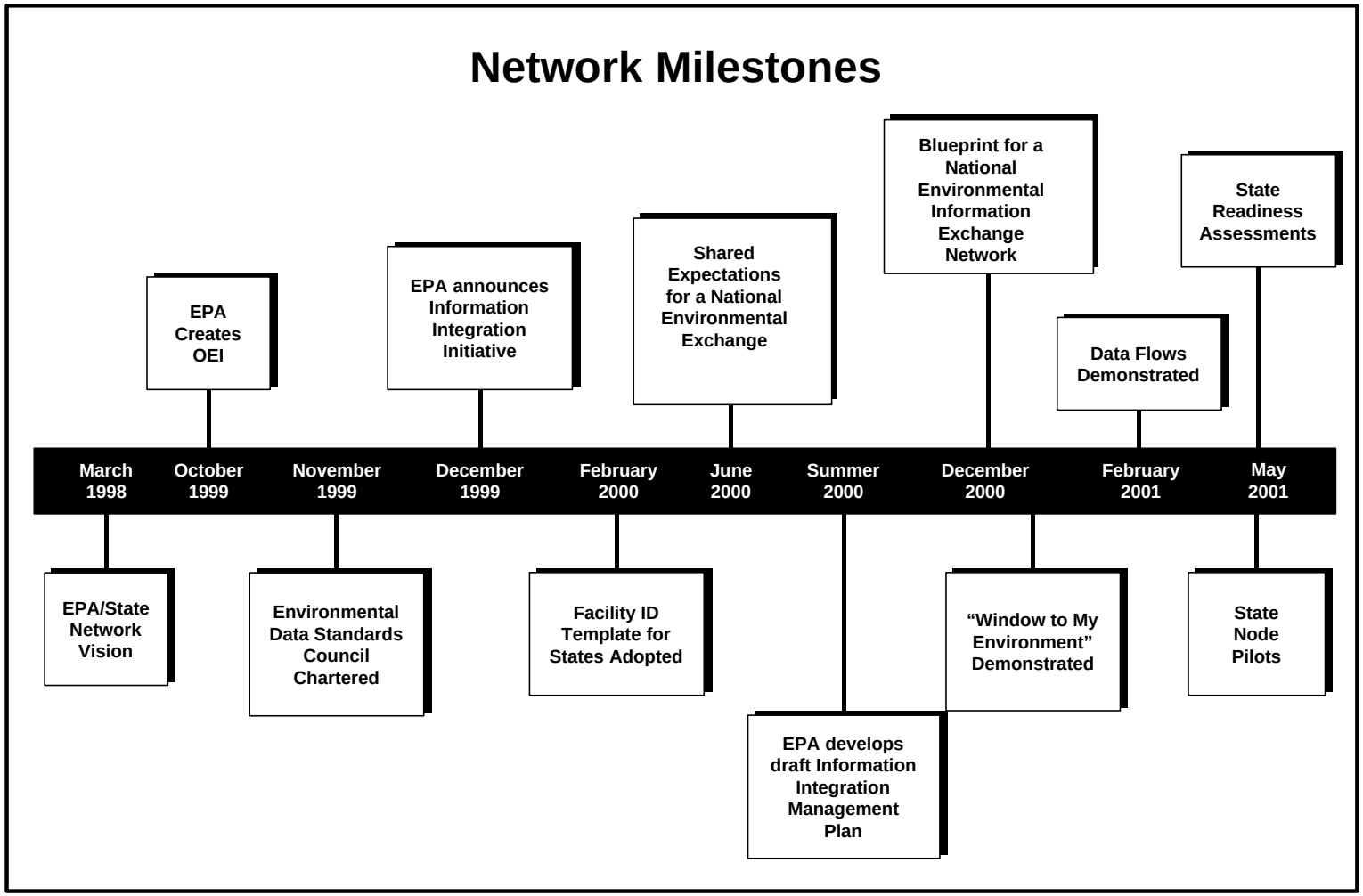
Information Forum:

- ***State Node Pilot***
  Nebraska, Utah, Delaware, and New Hampshire are developing pilot network nodes to share facility data over the Network.

- ***Facility Identification***
  The Facility Identification for States (FITS) data model was used by EPA to create the Facility Registry System (FRS) and has been used by many State agencies to create their systems that manage facility identification data and data integration. FITS II was prompted by the desire to continue to learn from the experiences of States and to incorporate the data elements and relationships of the facility standard into the template. EPA's FRS adopted the FITS II enhancements.

  An XML template was developed to facilitate the data transfer of facility identification data to the FITS II model and FRS database; a model Trading Partner Agreement (TPA) was developed and the first Network TPA for the exchange of facility identification data was drafted and signed by Region 7 and the Nebraska Department of Environmental Quality.

- ***State Readiness Assessment—****Completed a preliminary assessment to determine the readiness of States to participate in the Network and to become a node on the Network. (Preliminary results are discussed in Section IV.)*


Network Milestones
March 1998
October 1999
November 1999
December 1999
February 2000
June 2000
Summer 2000
December 2000
February 2001
May 2001
EPA/State Network Vision
EPA Creates OEI
Environmental Data Standards Council Chartered
EPA announces Information Integration Initiative
Facility ID Template for States Adopted
Shared Expectations for a National Environmental Exchange
EPA develops draft Information Integration Management Plan
Blueprint for a National Environmental Information Exchange Network
"Window to My Environment" Demonstrated
Data Flows Demonstrated
State Readiness Assessments
State Node Pilots

IV. FY2001–FY2003 Program Plans for the Network

Introduction

This section provides a high-level overview of Network milestones for FY2001–FY2003. These milestones are presented by the three dimensions of the Network. Many of the Network projects cross the three dimensions and simultaneously support multiple objectives and progress towards multiple milestones. EPA/State success in meeting these milestones is dependent on adequate support for EPA and State program efforts.

EPA and the States recognize the importance of project planning to guide the Network effort. As such, EPA and the States are in the process of developing an overall program plan for the Network. This overall plan will build on draft planning documents completed on the Network activities that were completed over the past year.

Near Term Goals for the Network

EPA and the States have made significant progress in developing the Network. To sustain and accelerate this progress, the States and EPA have established a set of near term goals for the overall development of the Network. These goals encompass all the Network dimensions outlined above and focus on results needed for each year. These goals are supported by the specific Network milestones for FY2001 - FY 2003 presented in Tables 4.1 and 4.2.

The near term goals, along with example milestones supporting the goals, are as follows:

In FY 2001:

- **Establish the technical and administrative foundations of the Network and validate the Network conceptual design.**
  (e.g., Network Blueprint, pilot registry for common formats)

- **Demonstrate EPA's capacity to participate in the Network.**
  (*e.g., CDX used for pilot data exchanges)*

- **States demonstrate ability to participate in the Network and provide knowledge transfer.**
  (e.g., node prototypes in three States)

In FY2002:

- **Expand Network infrastructure and increase number of data flows.**
  (e.g., initial guidance on Trading Partner Agreements, common formats for five major data flows)

- **Expand EPA's use of the Network.**
  (e.g., CDX expanded to 40% of EPA's major systems, national rollout of Window to My Environment access tool),

- **Expand State participation in the Network**
  (e.g., at least 20 States have basic nodes on the Network).

In FY2003:

- **Network Infrastructure nearly complete and major data flows occur on the Network.**
  (e.g., Data Exchange Templates completed for all priority data flows)

- **Network is part of EPA's routine business functions**
  (e.g., CDX expanded to 80% of EPA's major systems, initial enterprise repository is operational)

- **Achieve participation by a large number of States, and bring in new partners.**
  (e.g., at least 35 States, and additional partners, have basic nodes on the Network)

A. Network Infrastructure

Table 4-1 provides a summary of milestones for FY2001–FY2003. In addition to direct investments in the Network components, such as data exchange templates (DET), much of the work planned to advance these components will be flow-based. Early data flows are being used to systematically and proactively develop specific components and procedures that will be used by later flows. For example, the flow of air emissions monitoring data will provide an opportunity to pilot the development and use of a data exchange template for a large complex data set. This approach provides critical joint learning among EPA and its partners, and ensures that the infrastructure being developed is well grounded.

As these project tables indicate, most early FY2001 work consists of pilot projects to validate Network specifications and first generation implementation of data flows. FY2002 work shifts this emphasis to expansion of first generation flows to more flow partners, establishment of new flows, and development of second generation specifications. This approach also allows EPA and the States to test the components while incorporating advances in technologies in second generation specifications. Although not listed separately, these efforts include approximately 20 projects, coordinated by EPA's Office of Environmental Information and the State/EPA Information Management Working Group. Detailed workplans for these projects will be included in the larger Network program plan now under development.

B. EPA's Infrastructure Needed to Participate as a Partner in the Network

As indicated in Section II, EPA's IT investments go well beyond those related to the Network alone. This discussion focuses on those aspects of EPA's Agency-wide IT projects that will enable EPA to integrate information across National Program systems, exchange data with States, and provide access over the Network. These EPA "component projects" are as follows: (1) a Central Data Exchange portal: (2) a linked set of data registries; (3) a linked system of information access, including an enterprise data repository; (4) decision support tools; (5) a Geospatial Program; (6) Enterprise Architecture planning; and (7) data standards.

Key 2001–2003 milestones for these component projects are highlighted in Table 4-2. By 2002, EPA is scheduled to complete the Agency's baseline enterprise architecture, the target architecture to implement the EPA infrastructure dimension of the Network vision, and a sequencing plan to transition EPA's major regulatory and ambient monitoring systems to the target architecture. By 2003, EPA will also implement a fully operational electronic exchange portal (CDX) that will be ready for data exchange with all States and ready to populate this data in 80 percent of EPA's major systems. Six key data standards, necessary for information exchange with States and information integration, will be implemented in EPA's regulatory and ambient monitoring systems. In addition, a complete system of data registries (facility, chemical, biological, and substance) will be fully operational. And finally, EPA will have an operational Agency-wide data repository and a geospatial tool, "Window to My Environment" (WME), that will allow users to access environmental information in their local community.

C. Partner Capacity to Participate in the Network

Improved environmental decision making must be supported by more and better information. As discussed above, EPA and States increasingly depend on each other to share and exchange information. In effect, the success of the Network will depend on the success of its partners. While the concept of "partner support" may seem a uniquely governmental concern, several of the private sector initiatives studied during development of the Network Blueprint included explicit provisions for partner support as a critical success factor. Large firms/consortia found that only by assessing and supporting the capabilities of their suppliers and distributors (who were often much smaller entities) in implementing e-commerce approaches could they reap the efficiency returns of such systems. In particular, the RosettaNet (an electronics e-commerce initiative) defined the term "partner readiness assessment" as a systematic characterization of the preparedness (technical and otherwise) of the universe of partners to engage in e-commerce. Applying this concept to the Network, the EPA and the States have recently completed a preliminary State readiness assessment for the Network. This effort had three objectives:

1. Validate and refine the core requirements of Network participation for States.
2. Preliminarily assess each State's "readiness" and identify common issues, gaps, and opportunities.
3. Build interest and awareness about the Network among States by engaging them in the assessment and its findings.

Partner capacity activities for FY2001–FY2003 include continuing outreach and knowledge transfer activities to meet the needs of the States, Tribes, and other partners. Preliminary findings of the State Readiness Assessment are discussed below. They will be used to identify appropriate levels of partner support and to shape the Federal grant program described in Section V. It is anticipated that Territories and Tribes would be invited to participate in future readiness assessments.

Preliminary results from the State readiness assessment indicate that State information systems and enterprise management will require the most significant investment support. For States to be successful, each will need to establish and manage official information sources, have the ability to link these information sources to State portals or nodes, negotiate exchange agreements with EPA, assure appropriate data quality and construct the necessary linkages to the node with existing State systems, most likely as extensions to web/e-commerce infrastructures.

Table 4-1 Key Milestones for Network Infrastructure

Exchange Network Infrastructure Component	FY2001 SelectMilestones	FY2002 Select Targets	FY2003 Select Targets
Data Exchange Templates (DET) [Common formats for shared data]	< Common format for regulated facility data in use, and integrated with EPA's Facility Registry System. < Common formats for national flows for point source water discharges and air emissions monitoring in use. < Draft list of priority information flows completed. < Joint Technical Resource Group established to recommend standards and guidance for common formats.	< Common formats for 5 major flows of environmental information in use. < Common formats for ambient water quality monitoring data in testing. < Common *multi-media integrated* format for enforcement/ compliance/ permitting data under discussion.	< Common formats established for all priority information flows. < Common formats for 5 new flows which expand data available from existing national systems.
Trading Partnership Agreements (TPA)	< First TPA established.	< TPA established with 10 State partners for official flows. < TPA established for 30% of major business flow areas. < Version 1 TPA guidance and checklists published to support partners in drafting agreements.	< At least one TPA established in all major business areas. < v2.0 TPA Guidance published.

Table 4-1 Key Milestones for Network Infrastructure (continued)

Exchange Network Infrastructure Component	FY2001 SelectMilestones	FY2002 Select Targets	FY2003 Select Targets
Technical Infrastructure	< Fully operational Node prototypes in 3 States. < Preliminary security assessment and recommendations completed. < Library (registry) for common formats is in operational testing.	< 20 States and EPA have operational basic nodes. < Version 1 of Network technical specifications and "operating manual" drafted to support development of Nodes by all partners. < Library (registry) for common formats is in full operation.	< 35 States have operational basic nodes. < Technical specifications from external initiatives (OASIS, ebXML, xml.gov) evaluated and adopted as appropriate. < Additional partners (e.g., local governments and/or federal partners) have basic nodes operational. < Network Steering Group and Network Administration functions evaluated and re-chartered.
Data Standards	See Table 4-2 Data standards are a foundation of all three dimensions of the Network.		
Organizational Infrastructure	See sections following for EPA & State Organizational Infrastructure Projects		

Table 4-2 Key Milestones for EPA Infrastructure Component Projects

EPA Infrastructure Component	FY2001 Select Milestones	FY2002 Select Targets	FY2003 Select Targets
Central Data Exchange (CDX) Portal [EPA's common portal and connection to the Network]	- CDX portal interim production mode -30% of major EPA's systems are in production or being tested -20 to 30 states exchange data via CDX Acquisition initiated for full-scale CDX operations	- CDX portal acquisition is complete -40% of EPA's major systems are in production or being tested -CDX ready for all State exchanges Cross-Media Electronic Reporting and Record Keeping Rule is promulgated	CDX portal in full production -CDX expanded to 80% of major Agency systems
Data Registry Services [Enterprise libraries of common authoritative information designed to improve quality and reduce duplication]	**Facility Registry System** - populated with 550,000 facility records -6 EPA national systems completely represented -exchange with 4-8 States EPA enterprise registries for chemicals, substances, biological taxonomy, and the meta data established	**Facility Registry System** - populated with 750,000 facility records (@80% complete) -9 national systems completely represented -exchanges with 20 States EPA enterprise registries begin integration with major EPA national systems and the Network	**Facility Registry System** populated with 950,000 facility records (@90% complete) -13 national systems completely represented. -exchanges with 30 States The registries for facilities, chemicals, biological taxonomy, and substances will be linked to the Network to provide the most current set of Agency approved identification information
Information Access Mechanism and Decision Support Tools [Enterprise data warehouse and tools for improved access and improved environmental decision- making]	Plan for developing an Enterprise Repository Agency needs assessment for decision support tools The Window to My Environment (WME) prototype will cover four EPA Regions	Conduct needs assessment for an Enterprise Repository Develop a prototype Repository Window to My Environment is made national	Initial version of the Enterprise Repository will be operational

Table 4-2 Key Milestones for EPA Infrastructure Component Projects (continued)

EPA Infrastructure Component	FY2001 Select Milestones	FY2002 Select Targets	FY2003 Select Targets
National Geospatial Program [Providing, "place" based services, access and tools for information users]	Version 1 of Geospatial Index will be released. Index provides a, "yellow pages," of data Core EPA geospatial service needs and opportunities identified in Geospatial Baseline assessment Geospatial technical and information infrastructure assessment and alignment with enterprise architecture initiated	Version 2 of Geospatial Index will be released Integrated Geospatial Database available and tested Enterprise geospatial strategic plan completed and target infrastructure and architecture defined	Version 3 of Geospatial Data Index is released Integrated Geospatial Database acquired, all core agency geospatial data made available Enterprise geospatial infrastructure investments underway, per plan
Data Standards [common language for information exchange and integration]	Data standards will be developed for geolocation, permitting data, enforcement/ compliance data, and Tribal identifiers (Phase II standards)	Data standards for geolocation, permitting data, enforcement/ compliance data, and Tribal identifiers finalized and approved Final stage of implementation for industry classification, chemical, bio taxonomy, calendar date, facility identification, and lat/longitude in EPA's major regulatory & ambient monitoring systems (Phase I standards)	Phase I standard implementation complete in EPA major regulatory and monitoring systems Implementation of Phase II standards in EPA major regulatory and monitoring systems underway
Enterprise Architecture [EPA's internal blueprint for this transition]	Complete baseline and target architecture for regulatory & ambient monitoring programs	Develop an Agency sequencing (transition) plan for regulatory and ambient monitoring programs Complete architecture and draft sequencing plan for areas beyond regulatory and ambient	EA sequencing plan is implemented for major EPA regulatory & ambient monitoring systems. Sequencing plan for business areas beyond regulatory and ambient is final.

V. Exchange Network Grants

Introduction

The President's FY2002 budget request to Congress proposes $25 million for grants to be used in partnership with States and Tribes to advance the National Environmental Information Exchange Network and state data integration efforts. Working together over the past 16 months, EPA and the States have made tremendous strides toward achieving the State/EPA vision of building locally and nationally accessible, cohesive and coherent information systems.

The Exchange Network Grant Program

The States and EPA have worked to develop a proposal for carrying out this new State and Tribal grant program and have agreed upon three broad key components. EPA, States and Tribes will continue to work collaboratively over the summer, to develop guidance criteria and policies for this grant program. Although funds will not be available until the FY 2002 appropriations are approved, EPA will finalize the grant process over the summer so that EPA may issue a request for applications as soon as possible.

Options for Use of Funds by States

The three broad components of the proposed grant program, as envisioned by the States and EPA, are outlined below:

1. Core Capacity Building Grants - Proposed grant funds would be dedicated to advance state readiness to participate effectively in the Network. Components would include:

A. Continuation of One-Stop Grants - Would provide funding to five to six additional States in the first year of the grant program. Established in 1995, the unique role of the One Stop Program is to concentrate, at the State level, on implementing the basic elements of an effective environmental reporting and data management system. The 34 States that have received these one-time awards are generally better positioned to make investments in the Exchange Network because the funding has enabled them to build the essential internal capacity and support for environmental reporting and data management system reforms. Continuing such foundational efforts is important for the remaining 16 States to participate in the Exchange Network.

B. State Readiness Base Grants -Would provide funding to States to enhance their capacity to participate in the Exchange Network . All States would be eligible for these grants.

2. Challenge Grants - Would provide funding, through a competitive process, to support single or multi-state collaborative efforts to advance the Exchange Network through the development of Network-related components that have a broad benefit to all Network participants.

3. Network Administration - Would provide funds to support technical and administrative functions of the Exchange Network. These funds would support common or shared functions necessary for Network participation for participating agencies. Support for Network administrative functions would help move the Exchange Network forward and result in clear and broad benefits to all agencies participating on the Exchange Network.

Funds for use by Tribes and Territories

As is customary with most EPA grant programs, proposed funds would be made available to both States and Tribes, US Trust Territories and the District of Columbia. A percentage of the funds would be set aside for grants to Tribes.

Future funding for support of the Exchange Network

It is anticipated that multiple year funding would be necessary to achieve the proposed milestones for Exchange Network development.